

Amendments to the Specification:

## ABSTRACT OF THE DISCLOSURE

A ~~dual-action~~ biopsy needle scrapes tissue of cellular thickness from a lesion during forward and ~~backward~~ ~~reciprocations~~ ~~repeated proximal-to-distal thrusts~~ of the needle along its longitudinal axis of symmetry. A first sharp edge, formed by a beveled distal end of the needle, scrapes tissue during proximal-to-distal travel of the needle. A second sharp edge is provided by a transversely disposed slot formed in the needle near the first sharp edge. The second sharp edge also scrapes tissue during ~~distal to proximal~~ proximal-to-distal travel of the needle. ~~In a first embodiment, the~~ The second sharp edge ~~is~~ may be coincident with an exterior surface of the needle. ~~In a second embodiment, the~~ The second sharp edge is elevated with respect to the exterior surface, ~~and in a third embodiment the second sharp edge is~~ or recessed with respect to the exterior surface. Additional embodiments include a second slot, a channel, and Another embodiment includes a hinge for enabling pivotal movement of the second and third sharp edges sharp edge.

[0002] This disclosure is a divisional application claiming the benefit of the filing date of pending U.S. patent application entitled: "Dual Action Aspiration Biopsy Needle," by the same inventor, filed on September 23, 2002, bearing Serial No. 10/065,155 which is a continuation-in-part of U.S. Patent No. 6,592,608 that issued on July 15, 2003 by the same ~~inventor~~ patent application of the same title by the same inventor, filed August 9, 2001, bearing Serial No. 09/682,252, now abandoned.

[0008] The first improved procedure involves the cutting or shearing of one or more visible pieces of the tumor or lesion by a relatively large bore needle. This type of biopsy is known as a core tissue biopsy and is performed with a core tissue biopsy needle. The pieces of tissue are usually about one to three millimeters in length and are thus visible to the unaided eye. They cannot be immediately examined under a microscope because they are too thick for light to pass therethrough. Accordingly, they must first be sliced into a plurality of very thin slices by a tissue-slicing machine. After slicing, they are then stained with a tissue fixative e.g., formalin, glutaraldehyde, etc., and placed upon a microscope slide for diagnostic purposes. For a period of time sufficient to cause crosslinking of connective tissue proteins present in the tissue, the fixed tissue is sliced into thin sections approximately eight (8) microns thick, the tissue sections are

mounted on slides and cell-selective histiological stains are applied to stain the tissue prior to microscopic examination. This non-frozen tissue preparation technique typically requires twenty four to forty eight (24-48) hours to complete so the pathologist's diagnosis of the breast lesion may not be available until twenty four to seventy two (24-72) hours after the biopsy specimen was removed from the breast. Accordingly, histopathological examination and diagnosis of breast lesions may be much more time-consuming than the histopathological examination and diagnosis of other types of lesions.

[0028] In a fourth embodiment, the slot is also angled relative to a transverse axis of the needle such that a bottom of the slot is positioned proximal to an opening of the slot and the second sharp edge thereby created is coincident with the exterior surface ~~is~~ of the needle.

[0046] FIG. 6 ~~is~~ an enlarged longitudinal sectional view of a third embodiment;

[0078] As drawn, the cut that forms sharp edges 20, 20a, 20b, and 20f ~~are~~ is disposed substantially parallel to the bevel cut that forms first sharp edge 14 of needle 10. Accordingly, said sharp edges scrape tissue with the same degree of efficiency as first sharp edge 14. The scraping action provided by these sharp edges is during the distal-to-proximal stroke of needle 10 whereas the scraping action provided by first sharp edge 14 is during the proximal-to-distal stroke.